

100 Voices on Technology & Peace Operations

Exploring the impact of digital technology on conflict dynamics and peace operations

| Digital technologies in peace operations

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Throughout history, changes in technology have led to changes in the ways war is fought and peace is won. International organisations, such as the UN and the EU, have had to contend with emerging digital technologies that change the nature of conflict and shape the global geopolitical landscape, in which peace operations operate. As with most technological change, current developments offer opportunities for harnessing innovation to enhance effectiveness and foster sustainable peace but also harbour significant risks: digital technologies can destabilise the security environment and can pose a threat to the peace operation itself.

In this piece, I will share some personal observations on how the work of peace operations is evolving in light of ever-accelerating digitalisation. I begin by providing a contextual background, then describe the four “A’s”: the actors involved in and around peace operations; the information and analysis needed for successful operations; the opportunity for peace advocacy technology offers; and the issue of attribution for real and cyber attacks confronting peace operations. In the nick of time it seems, digital technologies are being fully explored for the good of peace, reflected in significant innovation in the UN and the EU. But while this nascent thinking has great potential, I argue that it has to contend with a highly complex environment and that to succeed, a more tech-aware organisational culture is essential.

THE LAY OF THE LAND

How then, do digital technologies affect conflict environments, as well as impact peace operations directly, and how have the UN and the EU responded to and benefited from these developments? As we speak, 160,000 men and women are fostering peace worldwide as part of multilateral peace operations. Approximately, 100,000 of these are serving under the auspices of the UN, another 4,000 make up EU operations. Military forces, police officers and civilian staff jointly assist countries in a myriad of ways as they move from conflict to peace.

A number of initiatives in the UN have sought to address the intersection between digital

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technology and international peace and security. Already in 2006, then UN Secretary-General Kofi Annan established the multi-stakeholder discussion platform [Internet Governance Forum](#), the [UN Global Pulse](#) initiative on big data and artificial intelligence began its work in 2009, and in September 2018, Secretary-General António Guterres issued a [Strategy on New Technologies](#) and appointed a [High-level Panel on Digital Cooperation](#). In parallel, the EU established its own [EU Global Tech Panel](#) in September 2018 to encourage a “new conversation [...] between diplomacy and technology leaders”.

Most of these initiatives have two facets: on the one hand, they target internal processes and efficiency gains through embracing digital solutions more consistently. On the other, they tend to view technologies as predominantly [enhancing work](#) in the area of [development](#) and [humanitarian action](#), but not necessarily peace operations. When it comes to peace operations, much of the current thinking builds on the 2015 “Performance Peacekeeping [Final Report](#) of the Expert Panel on Technology and Innovation in UN Peacekeeping”. The report argues that technology and innovation are critical for the operational impact of current and future UN peace operations and encourages more effective use of technology to both enhance their immediate impact and over time become a learning and innovation organisation.

ACTORS

The multilateral system of peace operations and conflict management is intergovernmental. State-to-state mechanisms are used to prevent or respond to conflict. Peace operations are deployed with the consent of a host government and implicitly biased towards strengthening state authority – albeit while promoting human rights, democratic oversight, and a society governed by the rule of law. The predominance of state-to-state interaction is at odds with the way that digital technologies transcend borders and the fact that agency today lies with a multiplicity of actors. Low thresholds of access have led to a proliferation of actors that can exercise political influence and in the extreme, wield weaponised technology on par with states.

In the context of peace operations, the landscape of actors features regional organisations, neighbouring states, civil society organisations, diaspora, state and non-state armed groups, criminal gangs, and the population at large – all shaping the conflict dynamics. Peace operations increasingly reach out beyond the state, such as by exploring traditional justice mechanisms or engaging non-state armed groups. But this entails significant challenges: given a complex and fluid group of potential counterparts, peace operations struggle to identify with whom to engage. They strain to marry non-state initiatives with their task of supporting the state and, as a consequence of both challenges, find themselves accused of not acting impartially – by all sides. Digital technologies can help peace operations navigate this landscape by enhancing their understanding of the conflict context (analysis), by explaining their role and by expanding the conversation to new partners as well as challengers (advocacy).

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ANALYSIS

A peace operation's need for information and analysis is three-fold: (1) it requires a coherent, real-time, operational understanding of the mission area, a so-called common operational picture; (2) it also needs early warning of imminent threats, such as to life, property, and movement; and (3) it should have sufficient information and analysis to identify risks and opportunities over the horizon. Situational awareness is essential for self-protection, but also for mandate implementation, especially when it comes to a peace operation's remit to protect civilian populations.

Digital technologies allow more systematic capture and processing of large amounts of data on the basis of which well-founded conclusions might be drawn. In the best case, data can help to fill information gaps on the peace operation's environment and identify patterns or trends related to the conflict dynamics. Technical solutions for collating information from a variety of sources, ranging from human intelligence to data captured by unmanned aerial vehicles or open source data, and managing the information cycle in missions are being rolled out. For years, these were sporadic and varied from mission to mission. When UAVs were introduced in the Democratic Republic of the Congo for the first time in 2013, this signalled a sea change towards a more systematic approach and a harmonisation of tools across missions. A number of peace operations now deploy UAVs, such as the UN in the DRC, CAR, and Mali, and the OSCE and the EU in support of their monitoring missions in the Ukraine and Georgia.

In addition, satellite imagery has been used to help map conflicts and perception surveys have reached out in order to better understand both the conflict dynamics and the impact of peace operations, including unintended negative consequences. In that way, digital technologies can enhance existing processes from better-informed, more timely decision making to improve monitoring, evaluation, and reporting.

While these mechanisms and tools are a major step forward towards a fuller understanding of the conflict environment and more targeted mandate implementation, they remain dependent on technical and analytical capacities and on the input provided. Peace operations often struggle with information sharing and have staff that rotates frequently and has little expertise in the area of digital technology and data handling.

The UN in particular has also come late to the party due to political sensitivities regarding the use of intelligence in peace operations. For almost 70 years, "intelligence" had been a taboo word, as a number of Member States considered any UN efforts to establish a capability to gather and analyse information clandestine, spying, and a serious violation of a host state's sovereignty. As the environments into which peace operations deploy have become more volatile in recent years, missions have increasingly found themselves operating with one hand tied behind their backs. The issuance of an [intelligence policy](#) in 2017 and the harmonisation of technological analysis tools are first steps towards remedying this imbalance.

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In the EU, the term “intelligence” has been far less contentious. The 2003 European Security Strategy simply considered intelligence part of the EU’s comprehensive approach to conflict management. In military CSDP operations, the EU relies on a lead nation to provide specific intelligence capacities, processes or structures rather than construct their own.

These sensitivities reflect questions that remain unanswered, including the rights and responsibilities of a foreign entity to generate or collate and analyse data in a third country, the challenge of ensuring the integrity and protection of data collected and questions related to accountability and transparency more generally. The UN and the EU’s scope of action in each conflict area is formally delineated by status of forces and status of mission agreements that stipulate the rights and obligations of the international presence and the host government and grant international staff privileges and immunities. While these agreements permit the collection of information in support of the peace operation’s mandate, they do not regulate data handling, sharing or storage, nor do they fully consider issues of potential privacy infringements. It is not surprising therefore that some countries that host UN peace operations, such as Lebanon and South Sudan, do not allow the use of UAVs in their airspace.

ADVOCACY

Ultimately, a peace operation aims to find and foster sustainable political solutions and to promote reconciliation and dialogue among the population. Technology offers opportunities for outreach through mass and targeted communication, which can be used for constructive or disruptive purposes. Particularly in an environment where access to news sources is limited but mobile phone penetration is growing, digital technologies facilitate – maybe even democratise – access to information. Peace operations have used this actively to render dialogue initiatives and consultative processes more inclusive and access communities which are usually hard to reach or marginalised.

Social media has also been used to mobilise populations for a cause, expediting connections and alliances, enhancing the ability to share plans and thoughts, offering opportunities for inclusiveness, expanding the conversation, and generating ownership. At the same time, bias in data collection and algorithms used to analyse the data can lead to false conclusions or systematic blind spots, for example in a conflict area like Libya where women struggle to be visible.

While digital tools harbour great promise, those that seek to disrupt, spoil or are simply sceptical of a peace process are looking to capture the same audience by targeting and filtering messaging in an effort to spread a certain ideology or even radicalise communities. In that way, mass communication technologies can be used to conduct a disinformation campaign or subvert a political process. As the Centre for Humanitarian Dialogue’s [report](#) on “Peacemaking and new technologies” points out: “The interconnectedness of people through digital media and technology has enabled the weaponisation of information and disinformation on an unprecedented scale

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[...]. At the same time, online space provides new channels through which mediators can monitor rapidly evolving conflict trends and can interact with, and shape the narratives of, conflict parties". The importance of social media as a space and as a tool have made strategic communications an increasingly central task for peace operations. The aim is to convey the work of the mission and digital tools are increasingly used to visualise progress – to aid in decision-making but also to exhibit successes. Strategic communications also seek to counteract attempts to destabilise the environment, for instance by challenging or disproving fake news. Several UN aids, such as a [toolkit](#), an [action plan against hate speech](#), and [staff social media guidelines](#), have been introduced to build the understanding of how peace operations can use these tools effectively and for what. In addition, the organisation has begun to look into using big (open source) data for natural language processing, sentiment analysis and identifying fake news and deep fakes.

ATTRIBUTION

Direct attacks using digital tools or those staged in cyber space are linked to peace operations in two ways. On the one hand, cyber security has become as serious a protection issue – of mission staff, assets and reputation – for the EU and the UN as it has for the rest of the world. On the other hand, attacks can have a destabilising effect on the conflict environment – for instance, where fake news or hate speech is spread, public information manipulated, or critical infrastructure attacked in an already volatile (post-)conflict context.

Particularly challenging in both cases is the fact that these attacks tend to be non-attributable. Rumours or campaigns on social media can lead to a rapid escalation of tensions without a clear aggressor, making it difficult if not impossible to enforce existing rules, hold an attacker accountable, or launch defensive or countermeasures. Peace operations today lack the capacity to identify, pre-empt, or counter the dimensions of conflict that fluently move between the cyber realm and real communities on the ground. However, efforts are underway in the UN to more systematically scan social media for potential trouble through the language and sentiment analysis. The aim is to assist staff in mitigating security risks, but also helping to direct pre-emptive measures to prevent escalation.

A second aspect of attribution that indirectly affects peace operations has to do with the regulation of cyber space. Since 1945, the UN has been the custodian of the regulation of conflict through international treaties and by virtue of the UN Security Council declaring threats to international peace and security. Despite attempts to coordinate the digital realm however – such as through the Internet Governance Forum – rule-setting is increasingly fragmented and opinions divided over what constitutes a hostile act, especially when it might not be committed by a state nor involve immediate death, damage or destruction of property or livelihoods. While there are dedicated forums which strive to define new rules or ethics guidelines for the digital sphere, others argue that existing regulation of conflict through International Humanitarian Law (IHL) and International Human Rights Law (IHRL) should suffice, if only a reorientation towards fundamental values and norms could take place.

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IN CONCLUSION

Digital technologies in peace operations appear to have untapped potential, even though the impact of existing uses is understudied and empirical evidence scarce. In support of elections, human rights, or police work of peace operations, there have been very tangible uses, which have, for example, facilitated investigations, structured case file management, expedited and safeguarded voter registration, or strengthened the administration of national police counterparts by creating databases for personnel and asset management. Considering additional tasks in the areas of border management, patrolling and protection, or the reform of security institutions, a host of applications for digital technologies are imaginable.

Slowly, EU and UN peace operations are beginning to catch up with their colleagues in the humanitarian and development fields. Too often however, the discussion on the role of technology in peace operations becomes supply-driven, devising possible uses just because digital tools are available and sexy, rather than considering which challenges that peace operations are faced with actually lend themselves to a high-tech or even a low-tech solution. In order to determine meaningful applications, the awareness of possible technological tools among staff in peace operations needs to be developed. Far more tech capacity needs to be introduced and a culture of data collection and use fostered. At this point, much room for improvement remains as the value of data – collection and usage – is only just being recognised. Using the potential more fully could be a game changer for peace operations. As we move forward, it will be equally important to establish matching oversight and accountability frameworks from the outset.

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ABOUT THE AUTHOR

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